

What is claimed is:

1. A gypsum slurry composition comprising gypsum, a dispersant and water, said gypsum slurry composition containing 0.01-1.0 weight parts of a graft copolymer substance as said dispersant for 100 weight parts of said gypsum, said graft copolymer substance comprising one or more selected from the group consisting of graft copolymers obtained by a first process and a second process and salts of graft copolymer obtained further by a third process;

wherein said first process is a process of obtaining copolymers with weight-average molecular weight of 5000-70000 by radical copolymerization of radical reactive monomer mixture containing maleic anhydride and a monomer shown by Formula (1) by 95 molar % or greater and at a molar ratio of 50/50 - 70/30;

wherein said second process is a process of obtaining graft copolymers by a graft reaction of 100 weight parts of said copolymers obtained by said first process and 0.05 - 5 weight parts of a polyether compound shown by Formula (2);

wherein said third process is a process of partially or completely neutralized salt of said graft copolymers obtained by said second process with one or two selected from the group consisting of alkali metal hydroxides, alkaline earth metal hydroxides and amines;

wherein Formula (1) is



wherein Formula (2) is



wherein R^1 is acetyl group, methyl group or hydrogen atom; R^2 is aliphatic hydrocarbon group with 8-20 carbon atoms; A^1 is a residual group obtained by removing all hydroxyl groups from (poly)alkylene glycol having a repetition number of 1-150 for oxyalkylene units composed only of oxyethylene units or of both oxyethylene and oxypropylene units; and A^2 is a residual group obtained by removing all hydroxyl groups from polyalkylene glycol having a repetition number of 23-70 for oxyalkylene units composed of both block-connected oxyethylene and oxypropylene units.

2. The gypsum slurry composition of claim 1 wherein said first process is a process of obtaining copolymers with weight-average molecular weight of 10000-50000 by radical copolymerization of radical reactive monomer mixture in the absence of any solvent.

3. The gypsum slurry composition of claim 1 wherein said second process is a process of obtaining graft copolymers by a graft reaction of 100 weight parts of said copolymers obtained by said first process and 0.2 - 4 weight parts of a polyether compound shown by Formula (2).

4. The gypsum slurry composition of claim 2 wherein said second process is a process of obtaining graft copolymers by a graft reaction of 100 weight parts of said copolymers obtained by said first process and 0.2 - 4 weight parts of a polyether compound shown by Formula (2).

5. The gypsum slurry composition of claim 2 wherein R^1 in Formula (1) is either acetyl group or methyl group and A^1 is a residual group obtained by removing all hydroxyl groups from polyethylene glycol with repetition number of oxyethylene units 10-90.

6. The gypsum slurry composition of claim 3 wherein R^1 in Formula (1) is either acetyl group or methyl group and A^1 is a residual group obtained by removing all hydroxyl groups from polyethylene glycol with repetition number of oxyethylene units 10-90.

7. The gypsum slurry composition of claim 4 wherein R^1 in Formula (1) is either acetyl group or methyl group and A^1 is a residual group obtained by removing all hydroxyl groups from polyethylene glycol with repetition number of oxyethylene units 10-90.

8. The gypsum slurry composition of claim 5 wherein R^2 in Formula (2) is aliphatic hydrocarbon group with 10-20 carbon atoms and A^2 is a residual group obtained by removing all hydroxyl groups from polyalkylene glycol having repetition number of 3-10 for oxyethylene units and repetition number of 20-60 for oxypropylene units.

5 9. The gypsum slurry composition of claim 6 wherein R^2 in Formula (2) is aliphatic hydrocarbon group with 10-20 carbon atoms and A^2 is a residual group obtained by removing all hydroxyl groups from polyalkylene glycol having repetition number of 3-10 for oxyethylene units and repetition number of 20-60 for oxypropylene units.

10 10. The gypsum slurry composition of claim 7 wherein R^2 in Formula (2) is aliphatic hydrocarbon group with 10-20 carbon atoms and A^2 is a residual group obtained by removing all hydroxyl groups from polyalkylene glycol having repetition number of 3-10 for oxyethylene units and repetition number of 20-60 for oxypropylene units.

15 11. The gypsum slurry composition of claim 8 with water-to-gypsum ratio of 20-75 weight %.

20 12. The gypsum slurry composition of claim 9 with water-to-gypsum ratio of 20-75 weight %.

13. The gypsum slurry composition of claim 10 with water-to-gypsum ratio of 20-75 weight %.

25 14. The gypsum slurry composition of claim 11 wherein said gypsum is gypsum hemihydrate.

15. The gypsum slurry composition of claim 12 wherein said gypsum is gypsum hemihydrate.

16. The gypsum slurry composition of claim 13 wherein said gypsum is gypsum hemihydrate.